

REMARKS

In the last Office Action, the Examiner objected to the drawings; rejected claims 1-7 and 9-12 under 35 U.S.C. § 103(a) as being unpatentable over Webb (U.S. Patent No. 5,517,383) in view of Williston (U.S. Patent No. 4,573,098); rejected claims 1-12 under 35 U.S.C. § 103(a) as being unpatentable over Webb in view of Muelleman (U.S. Patent No. 5,781,386); and rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Webb in view of Williston and further in view of Carlson (U.S. Patent No. 6,121,765).

Applicant respectfully traverses the objection to the drawings. In the Office Action, the Examiner contended that certain features of claim 12 were not shown in the drawings. By this Amendment, Applicant has amended claim 12 and respectfully submits that each element of amended claim 12 is shown in one or more of the drawings. Accordingly, the objection to the drawings should be withdrawn.

Applicant respectfully traverses the rejection of claims 1-7 and 9-12 under 35 U.S.C. § 103(a) as being unpatentable over Webb in view of Williston. No *prima facie* case of obviousness has been established with respect to claims 1-7 and 9-12 for at least the reason that there is no suggestion that would have motivated one of ordinary skill in the art to combine the references in the manner suggested by the Examiner. As the Examiner has properly recognized, Webb fails to disclose a current limiter positioned in series between a ground termination and sea earth, as included in independent claims 1, 11, and 12. In an attempt to remedy this deficiency, the Examiner has cited Williston, which discloses an inductor for limiting current in a circuit path. Specifically, the Examiner has maintained that it would have been obvious to one

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of ordinary skill in the art to use the inductive current limiter of Williston in the Webb circuit. Applicant respectfully disagrees.

Contrary to the Examiner's contention, there would have been no motivation to one of ordinary skill in the art to add or use the current limiter of Williston in the Webb circuit. As Webb discloses, certain submarine cable systems may experience flashover within the relays of the system that can result in discharge of a main cable to earth, which can damage the system. (col. 1, lines 39-42.) More specifically, "arcing" at a relay contact in a branching unit of the submarine cable system can occur when a relay contact closes such that a partially charged spur cable is placed in contact with sea earth. To prevent arcing at a sensitive vacuum changeover relay (i.e., one of three changeovers associated with respective cable terminations), Webb proposes adding an additional relay (D) between the vacuum relay and ground. (col. 6, lines 30-64; fig. 3.) Relay (D) is not a changeover relay and can withstand arcing without causing an arc transfer effect. Relay (D) is energized only after the vacuum changeover relay has switched, so that, if and when the discharge occurs (upon energizing of relay (D)), the contacts of the vacuum changeover relay are firmly closed and no arcing occurs within the vacuum changeover relay. Webb does not disclose or suggest any elements for limiting current flowing in a path between the spur cable and sea earth. Rather, Webb proposes to limit the damaging effects of such a current by confining it to a non-sensitive relay contact (i.e., relay (D)) that is less sensitive to problems associated with arcing.

Contrary to the Examiner's assertion, it would not have been obvious for one of ordinary skill in the art to add the current limiter of Williston to the Webb circuit.

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Because relay D is already included in the Webb circuit to prevent the negative effects of arcing at a relay contact in a branching unit of the submarine cable system, there would be no reason to add the current limiter of Williston to the Webb circuit for the purpose of solving a problem already solved by relay D. Additionally, neither Webb nor Williston suggests substituting a current limiter, or similar device, for a relay in order to protect a vacuum relay (as in the Webb circuit) from arcing. Such a substitution, in fact, would improperly change the principle of operation of the Webb device. M.P.E.P. § 2143.01. For at least these reasons, no *prima facie* case of obviousness has been established with respect to claims 1-7 and 9-12. Accordingly, the Section 103(a) rejection of these claims is improper and should be withdrawn.

Applicant respectfully traverses the rejection of claims 1-12 under 35 U.S.C. § 103(a) as being unpatentable over Webb in view of Muelleman. No *prima facie* case of obviousness has been established with respect to claims 1-12 for at least the reason that there is no suggestion that would have motivated one of ordinary skill in the art to combine the references in the manner suggested by the Examiner. As the Examiner has properly recognized, Webb fails to disclose a current limiter positioned in series between a ground termination and sea earth, as included in independent claims 1, 11, and 12. In an attempt to remedy this deficiency, the Examiner has cited Muelleman, which, according to the Examiner, discloses an inductive ground conditioning circuit for "choking high frequency transient currents" in a circuit path. Specifically, the Examiner has maintained that it would have been obvious to one of ordinary skill in the art to use the inductive ground conditioning circuit of Muelleman in the Webb circuit.

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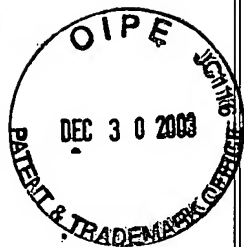
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Contrary to the Examiner's contention, it would not have been obvious for one of ordinary skill in the art to add the ground conditioning circuit of Muelleman to the Webb circuit. As described above, the Webb circuit already includes a device (i.e., relay D) for preventing the negative effects of arcing at a relay contact in a branching unit of a submarine cable system. Even assuming the Examiner is correct and Muelleman discloses a ground conditioning circuit for "choking" high frequency transient currents in a circuit path, in view of the presence of relay D in the Webb circuit, there would be no reason to add the ground conditioning circuit of Muelleman to the Webb circuit. Additionally, neither Webb nor Muelleman suggests substituting a ground conditioning circuit, or similar device, for a relay in order to protect a vacuum relay (as in the Webb circuit) from arcing. Such a substitution, in fact, would improperly change the principle of operation of the Webb device. M.P.E.P. § 2143.01. For at least these reasons, no *prima facie* case of obviousness has been established with respect to claims 1-12. Accordingly, the Section 103(a) rejection of these claims is improper and should be withdrawn.

Applicant respectfully traverses the rejection of claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Webb in view of Williston and further in view of Carlson. As noted above with respect to claims 1-7 and 9-12, there is no suggestion that would have motivated one of ordinary skill in the art to combine Webb and Williston in the manner suggested by the Examiner. Carlson, cited only for its purported teaching of a resistor arranged in parallel with an inductor, fails to remedy this deficiency. For at least this reason, no *prima facie* case of obviousness has been established with respect to claim

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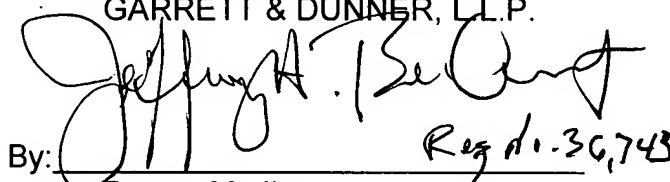
8. Accordingly, the Section 103(a) rejection of this claim is improper and should be withdrawn.

In view of the foregoing remarks, Applicant respectfully requests reconsideration and reexamination of this application and timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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